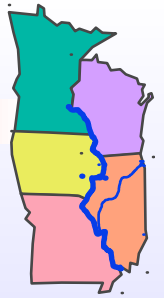
Upper Mississippi River System Navigation and Ecosystem Sustainability Program (NESP)

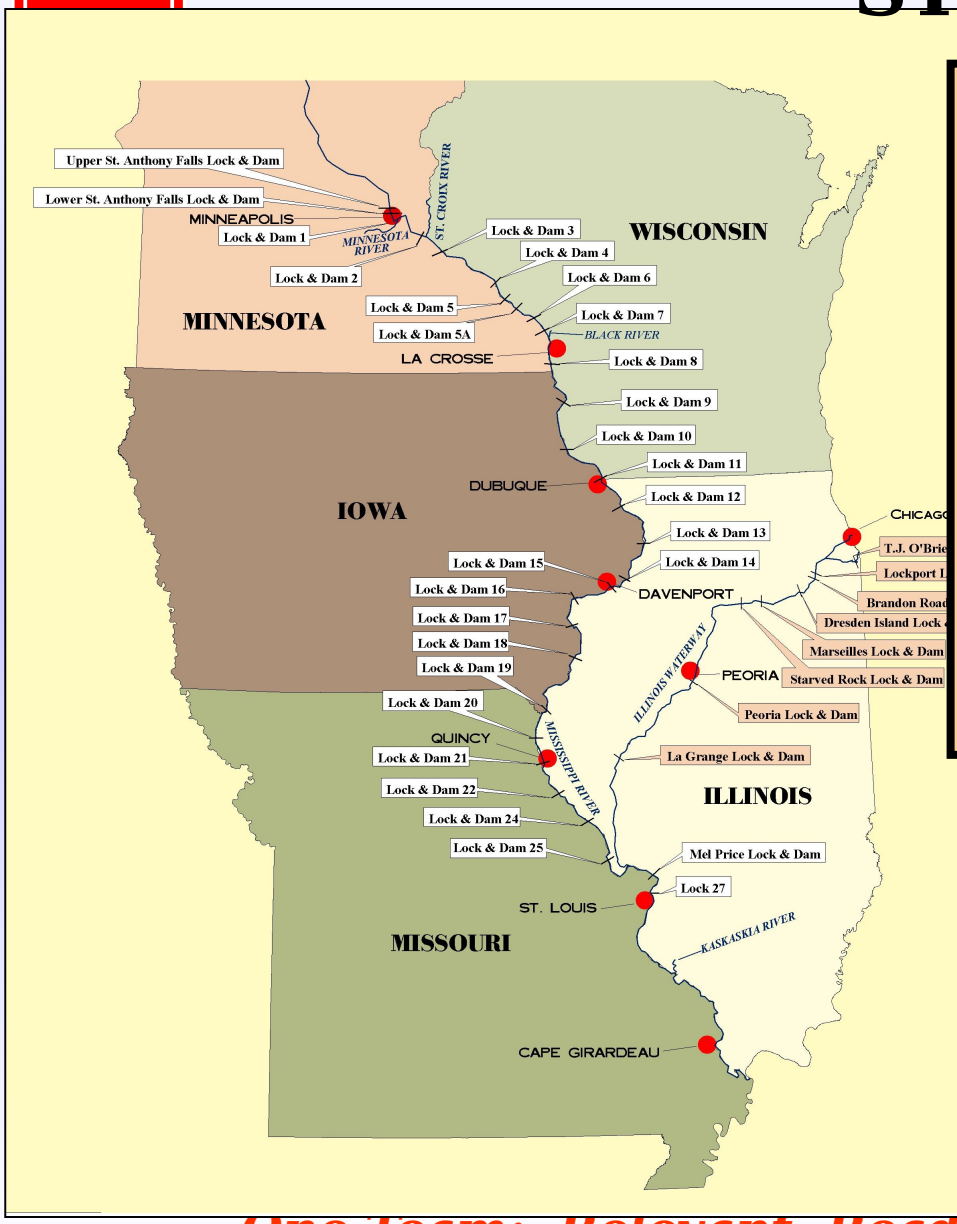
Presentation At:

Planning COP CONFERENCE, San Francisco

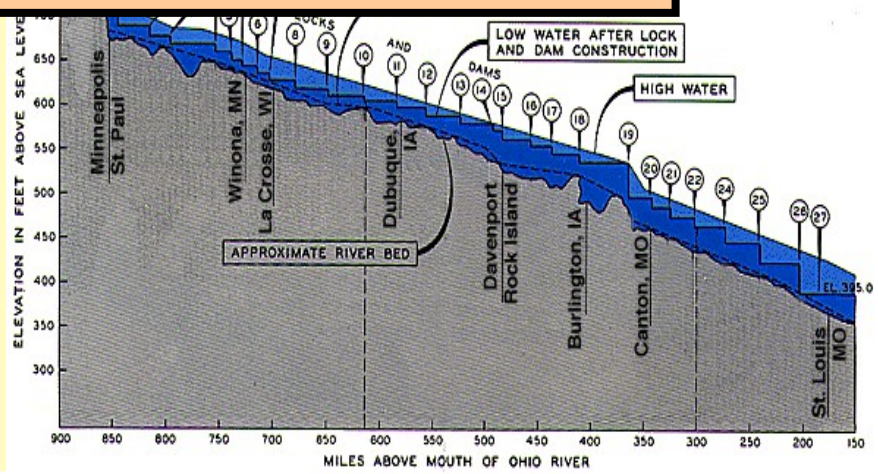
Ken Barr
&
Chuck Spitzack

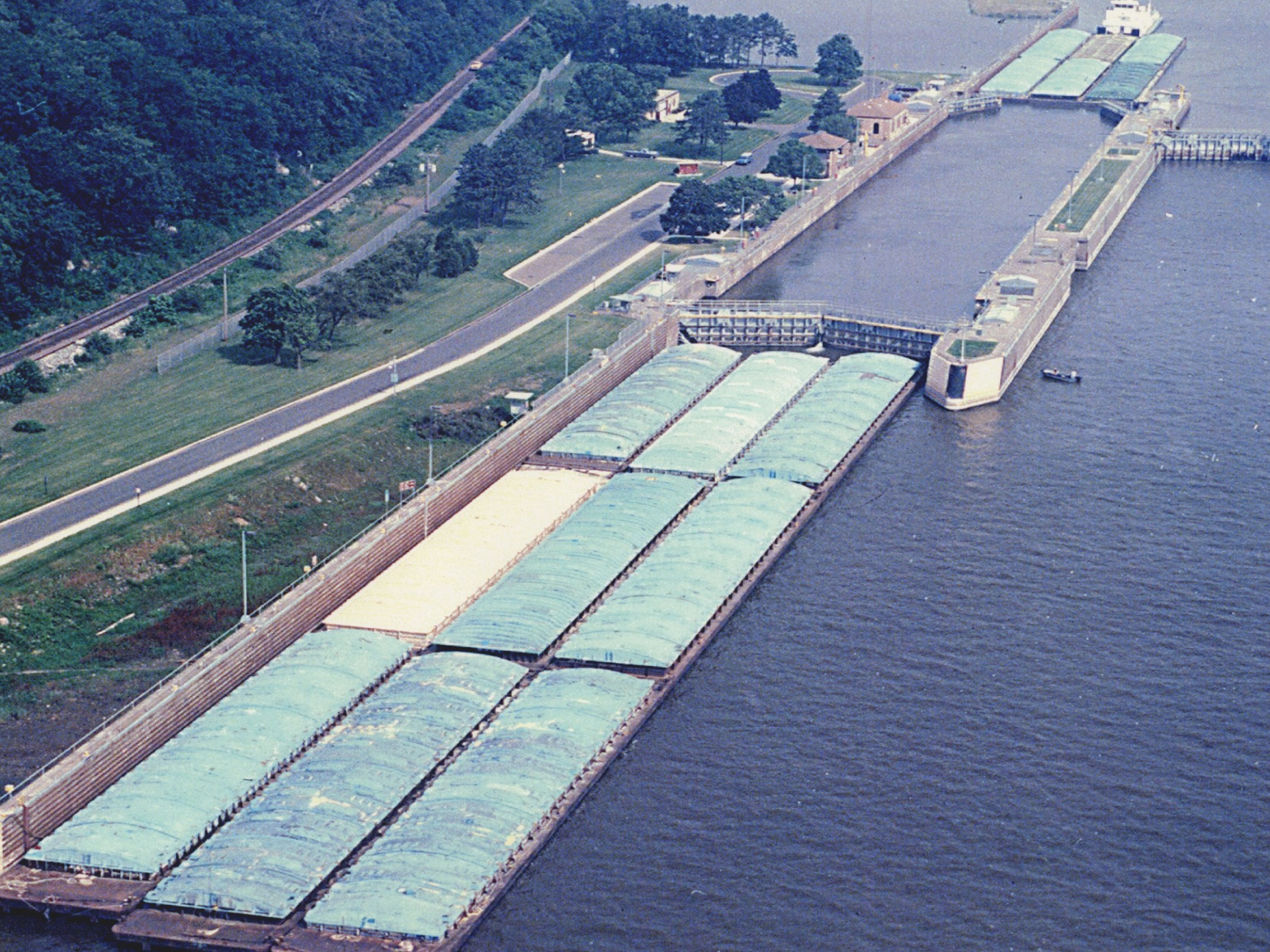
UMR-IWW NAVIGATION SYSTEM



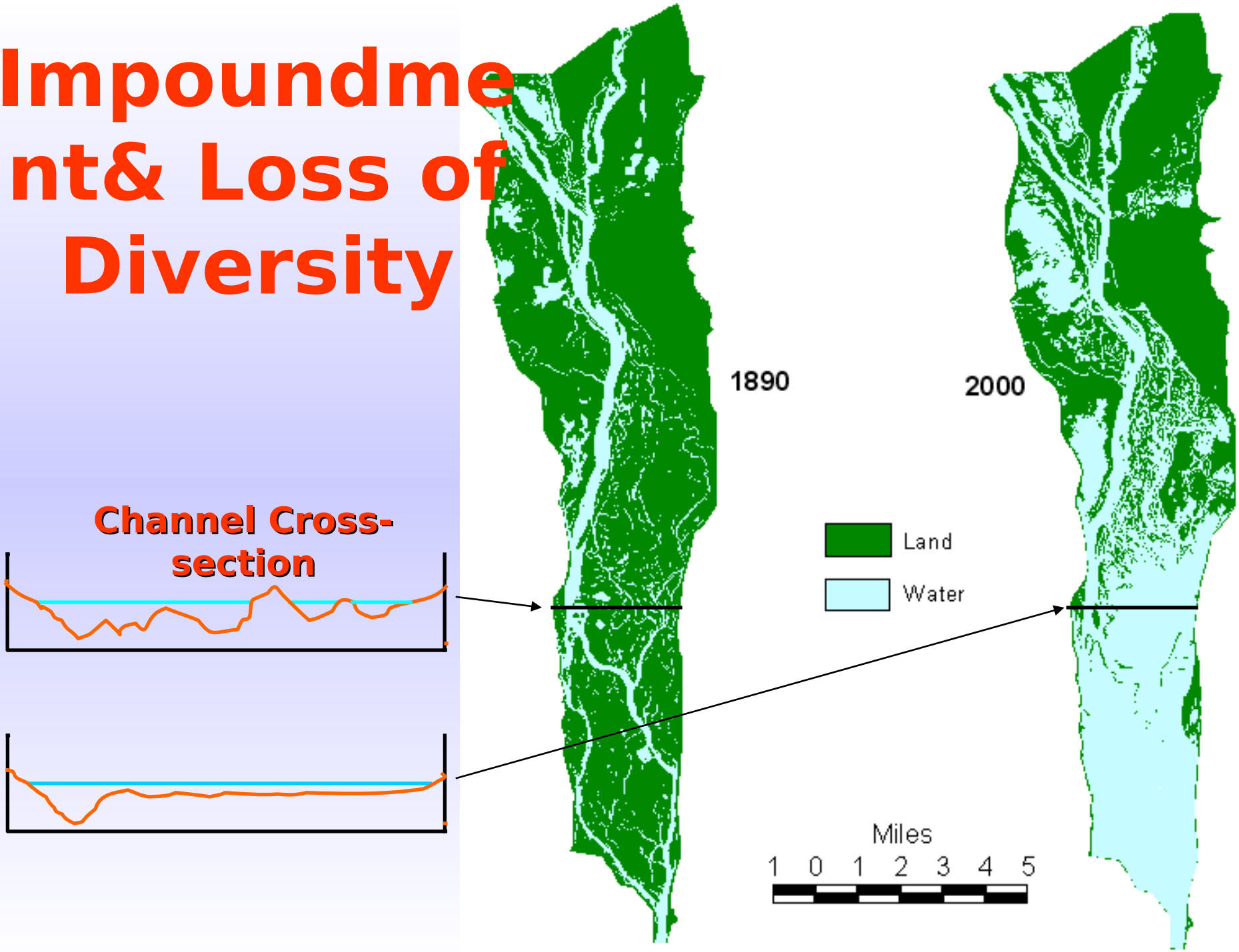


- 37 Lock Sites
- 1,200 Miles of River
- Significant Ecosystem (2.5 million acres)
- Constructed 1930-45





Impoundment& Loss of Diversity

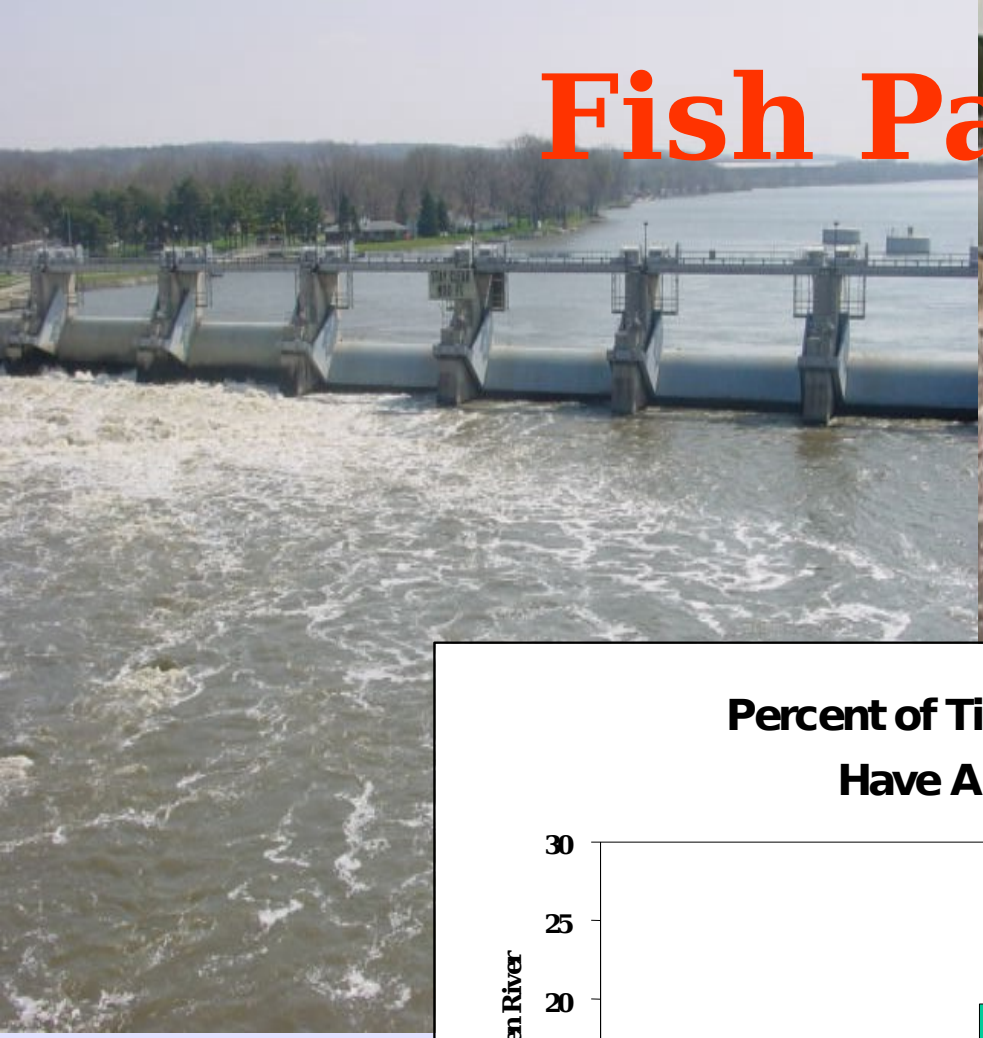


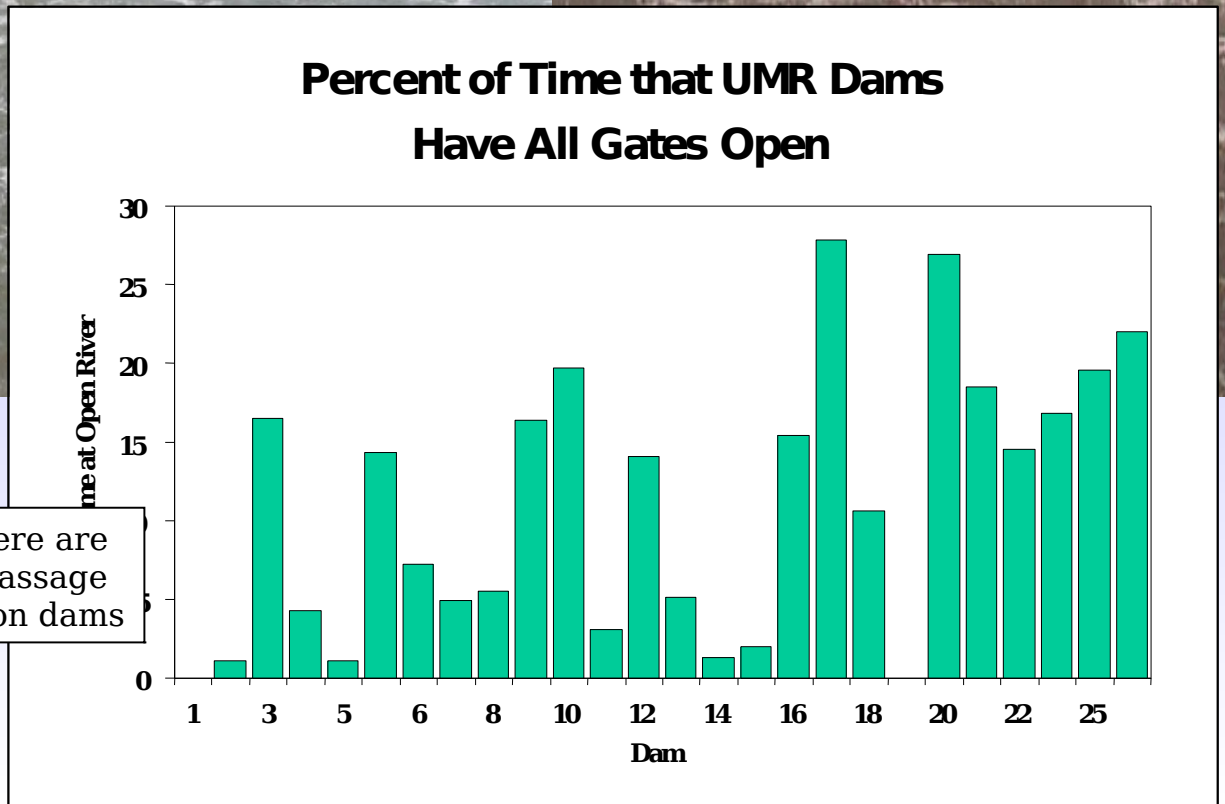
Loss of Island Habitat

October 1961

August 1994

Fish Passage



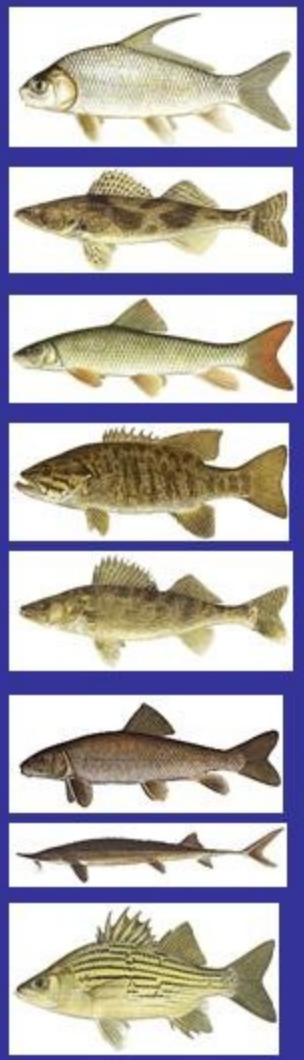


Percent of time that there are opportunities for fish passage through UMR navigation dams

Migratory Fish Species of the UMR

American eel
spotted sucker
silver lamprey
shorthead redhorse
lake sturgeon
black redhorse
pallid sturgeon[A]
golden redhorse
longnose gar
silver redhorse
shovelnose sturgeon
northern hog sucker
goldeye
white sucker
mooneye
channel catfish
paddlefish[B]
blue catfish

Alabama shad
flathead catfish
skipjack herring
white bass
gizzard shad
yellow bass
threadfin shad
northern pike
blue sucker[B]
smallmouth bass
smallmouth buffalo
largemouth bass
bigmouth buffalo
sauger
quillback
walleye
highfin carpsucker
freshwater drum

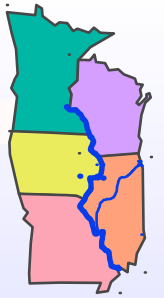


[A] federally listed endangered species

[B] candidate for federal listing

Floodplain Restoration

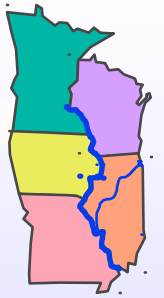
Navigation Implementation



$2.03 billion in First 15 years

- **Mooring Facilities @ Locks 12, 14, 18, 20, 22, 24 and LaGrange ($11M)**
- **Switchboats @ Locks 20 through 25 ($211M)**
- **Adaptive Implementation of 1200’ chambers at Locks 20 through 25, LGR, and PEO ($1.6B)**
- **Mitigation for Site Specific and System Effects ($180M)**
- **Continued Study and Monitoring ($22M)**

Ecosystem Restoration Implementation

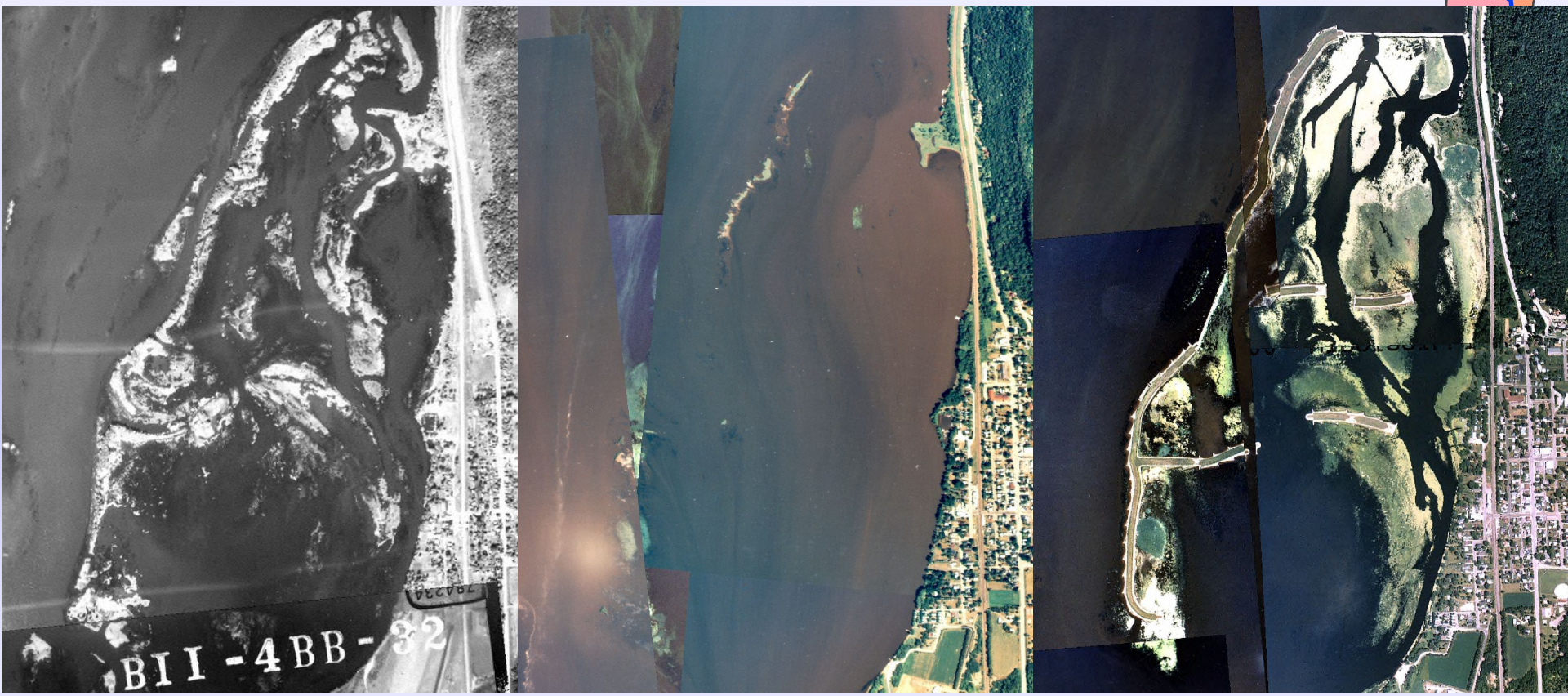


$1.58 billion in First 15 years

- **Fish Passage @ Dams 4,8,22, and 26**
- **Changes in Water Level Control @ Dams 25 and 16**
- **Adaptive Implementation of 225 small projects of less than $25 million each**
  - **Island Building**
  - **Water Level Management**
  - **Backwater/Side Channel Restoration**
  - **Wing Dam/Dike Alterations**
  - **Island Shoreline Protection**
- **35,000 Acres of Floodplain Restoration**
- **Continued Study and Monitoring**

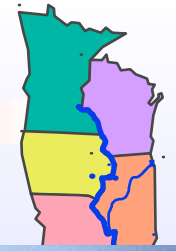
Water Level Management

Island Building

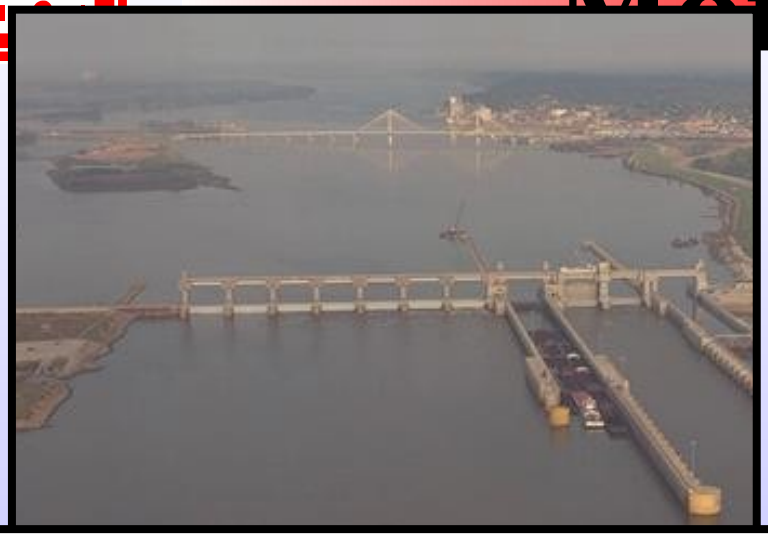


October 1961 | August 1994 | August 2000

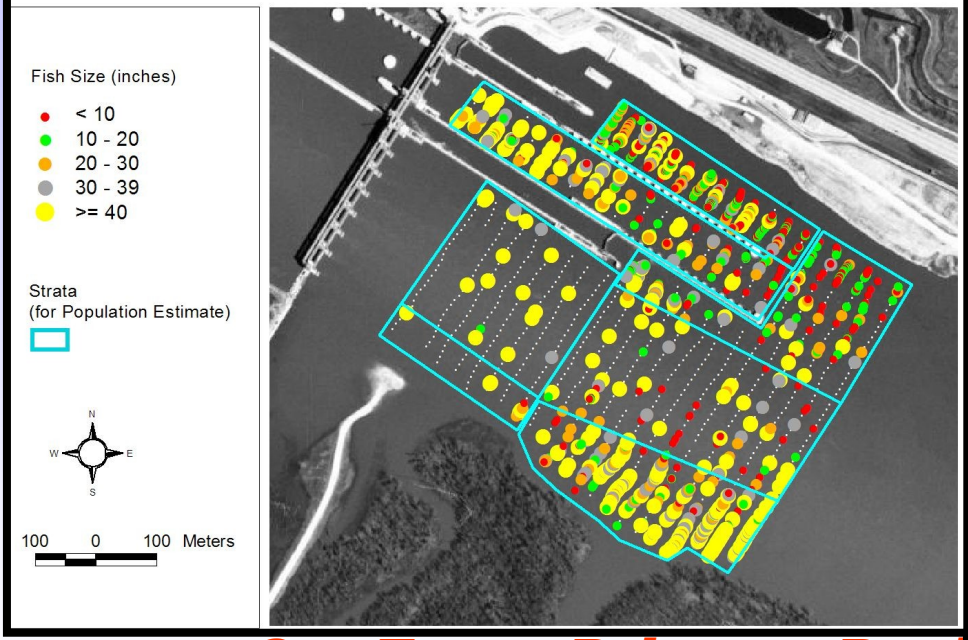
Side Channel Restoration



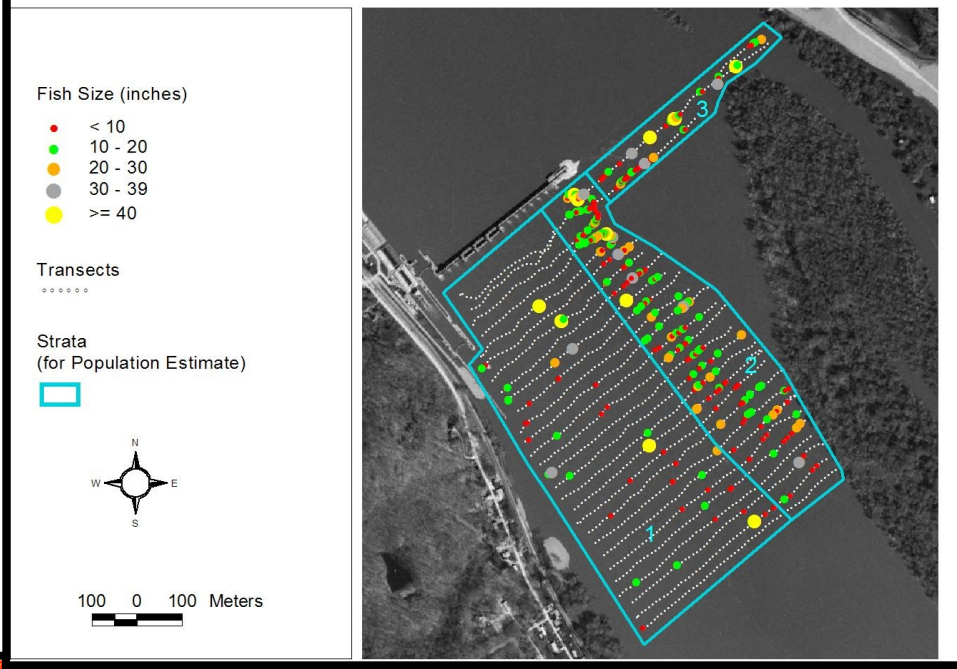
FISH PASSAGE – Monitoring



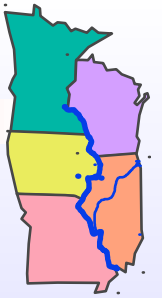
Mel Price Lock and Dam Survey 05/25/2005



Lock and Dam 22 Survey 06/30/2005



COLLABORATION



USGS
science for a changing world

US Army Corps of Engineers®

U.S. FISH & WILDLIFE SERVICE

DEPARTMENT OF TRANSPORTATION
UNITED STATES OF AMERICA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

USDA

Integrated Management Of The Upper Mississippi River SYSTEM

THE GREAT SEAL OF THE STATE OF MINNESOTA 1858

THE GREAT SEAL OF THE STATE OF WISCONSIN FORWARD

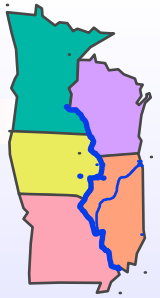
THE GREAT SEAL OF THE STATE OF IOWA

THE GREAT SEAL OF THE STATE OF MISSOURI

SEAL OF THE STATE OF ILLINOIS AUG. 26TH 1818

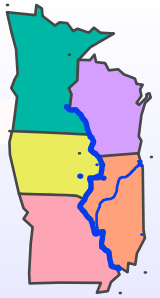
PUBLIC **NGO's**

One Team: Ready, Responsive and Reliable



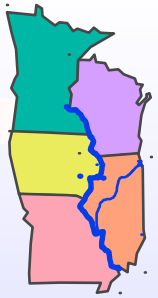
December 15, 1943 the Upper Mississippi River Conservation Committee (UMRCC) consisted of 22 fisheries biologists. It has grown to more than 200 resource managers working in the fisheries, recreation, wildlife, water quality, and law enforcement disciplines, whose goal is to:

"Promote the preservation and wise utilization of the natural and recreational resources of the Upper Mississippi River (UMR) and to formulate policies, plans and programs for conducting cooperative studies".



The Upper Mississippi River Basin Association

The Upper Mississippi River Basin Association (UMRBA) was formed in 1981 as a successor to the former federally authorized Upper Mississippi River Basin Commission. When that Commission was terminated by a Presidential Executive Order in 1981, the Governors of Illinois, Iowa, Minnesota, Missouri, and Wisconsin signed a joint resolution calling for “the continuation of an interstate organization to maintain communication and cooperation among the states on matters related to water planning and management.”

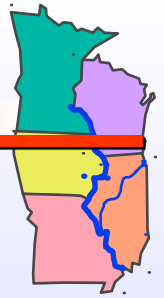


National Significance of Upper Mississippi River System

"… the intent of Congress to recognize that system as a nationally significant ecosystem and a nationally significant commercial navigation system. … shall be administered and regulated in recognition of its several purposes."

Citation: Water Resources Development Act of 1986, Section 1103(a)(2).

Environmental Management Program



USGS
science for a changing world

US Army Corps of Engineers®

U.S. FISH & WILDLIFE SERVICE
DEPARTMENT OF THE INTERIOR

Corporations

Levee Districts

UMRS-EMP

Minnesota DEPARTMENT OF NATURAL RESOURCES

WISCONSIN DEPT. OF NATURAL RESOURCES

DNR

Illinois Department of Natural Resources

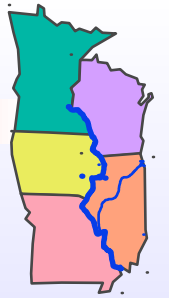
PUBLIC

CONSERVATION DEPARTMENT
MISSOURI

NGO's

One Team: Relev sponsive and Reliable

Institutional Arrangements



Collaboration by National Leaders Concerning the Upper Mississippi River Basin (UMRB) …

Collaboration by Regional Leaders Concerning the UMRB…

UMRS System Planning … Operational Level

UMRS Reach & Project Planning … Operational Level

FEDERAL PRINCIPALS GROUP (National)

UMRBA (States)

RIVER COUNCIL

ENVIRONMENT

NAVIGATION

ADVISORY PANEL (NESP Authorization)

WORK GROUP for LTRM

COM NETWORK

SCIENCE PANEL

RIVER RESOURCES FORUM (RRF)

RIVER RESOURCES COOR TEAM (RRCT)

RIVER RESOURCES ILLINOIS TEAM (RRIT)

RIVER RESOURCES ACTION TEAM (RRAT)

WORK GROUPS

WORK GROUPS

WORK GROUPS

WORK GROUPS

Communication among elements of institutional arrangements is encouraged to develop freely as groups identify needs.

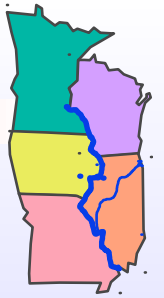
Connecting lines are primary associations, not lines of authority.

Project Delivery Teams (PDT) include partners and maintain appropriate communication with stakeholders and the public. They work within "management plans" that reflect a commitment to the agency responsible for the program.

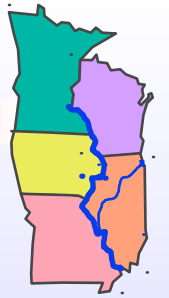
COMPONENTS OF INSTITUTIONAL ARRANGEMENTS FOR THE UMRS

River Resources Teams

RATT RRCT RRF



Institutional Arrangements



Collaboration by National Leaders Concerning the Upper Mississippi River Basin (UMRB) …

Collaboration by Regional Leaders Concerning the UMRB…

UMRS System Planning … Operational Level

UMRS Reach & Project Planning … Operational Level

FEDERAL PRINCIPALS GROUP (National)

UMRBA (States)

RIVER COUNCIL

ENVIRONMENT

NAVIGATION

ADVISORY PANEL (NESP Authorization)

WORK GROUP for LTRM

COM NETWORK

SCIENCE PANEL

RIVER RESOURCES FORUM (RRF)

RIVER RESOURCES COOR TEAM (RRCT)

RIVER RESOURCES ILLINOIS TEAM (RRIT)

RIVER RESOURCES ACTION TEAM (RRAT)

WORK GROUPS

WORK GROUPS

WORK GROUPS

WORK GROUPS

Communication among elements of institutional arrangements is encouraged to develop freely as groups identify needs.

Connecting lines are primary associations, not lines of authority.

Project Delivery Teams (PDT) include partners and maintain appropriate communication with stakeholders and the public. They work within "management plans" that reflect a commitment to the agency responsible for the program.

COMPONENTS OF INSTITUTIONAL ARRANGEMENTS FOR THE UMRS

Dual Purpose Plan …

To seek long-term sustainability of the economic uses and ecological integrity of the Upper Mississippi River System